

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-8 (canceled)

9. (new) A percussion drill bit for drilling a bore, comprising:

a rotary drill body including a rear connection section and a front head section; and

a plurality of regrindable cemented carbide buttons carried by the drill body, each button defining a longitudinal center axis and comprising:

a rear mounting portion embedded in the front head section and defining a largest diameter, and

a front cutting portion protruding from the drill body by a distance no less than 50% of the largest diameter of the rear mounting portion, the front cutting portion having an outer surface extending forwardly from a junction with an envelope surface of the mounting portion, the outer surface including:

a front surface portion of substantially semi-spherical shape
having a radius whose origin lies on the longitudinal center axis
at a location rearwardly of the junction, and

a conical surface portion extending between the junction and the
front surface portion and increasing in cross section as it
approaches the junction, the conical portion forming an acute
angle in the range of about 13-19 degrees with the envelope
surface of the mounting portion.

10. (new) The drill bit according to claim 9 wherein the distance that the front cutting portion protrudes from the drill body is no less than 52% of the largest diameter of the mounting portion.

11. (new) The drill bit according to claim 10 wherein the largest diameter of the mounting portion is located at the junction.

12. (new) The drill bit according to claim 9 wherein the radius of the mounting portion is in the range of about 85% to 115% of a largest radius of the rear mounting portion.

13. (new) The drill bit according to claim 9 wherein the mounting portion is of cylindrical shape.

14. (new) A regrindable cemented carbide button for use in a percussive rock drill bit, the button comprising:

a rear mounting portion, and

a front cutting portion having an outer surface extending forwardly from a junction with an envelope surface of the mounting portion, the outer surface including:

a front surface portion of substantially semi-spherical shape having a radius whose origin lies on the longitudinal center axis at a location rearwardly of the junction, and

a conical surface portion extending between the junction and the front surface portion and increasing in cross section as it approaches the junction, the conical portion forming an acute angle in the range of about 13-19 degrees with the envelope surface of the mounting portion.

15. (new) The button according to claim 14 wherein a largest diameter of the mounting portion is located at the junction.

16. (new) The button according to claim 14 wherein the radius of the mounting portion is in the range of about 85% to 115% of a largest radius of the mounting portion.

17. (new) The button according to claim 14 wherein the mounting portion is of cylindrical shape.